



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/690,812	10/18/2000	Makoto Fujieda	1095.1139/JDH	2768
21171	7590	05/16/2003		
STAAS & HALSEY LLP 700 11TH STREET, NW SUITE 500 WASHINGTON, DC 20001			EXAMINER	
			CAO, HUEDUNG X	
			ART UNIT	PAPER NUMBER
			2671	

DATE MAILED: 05/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/690,812	FUJIEDA, MAKOTO
Examiner	Art Unit	
Huedung X Cao	2671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 18 October 2000.
  - 2a) This action is FINAL.                    2b) This action is non-final.
  - 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.
- Disposition of Claims**
- 4) Claim(s) 1-9 is/are pending in the application.
    - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
  - 5) Claim(s) \_\_\_\_\_ is/are allowed.
  - 6) Claim(s) 1-9 is/are rejected.
  - 7) Claim(s) \_\_\_\_\_ is/are objected to.
  - 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.
 

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)           | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____                                     |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bardasz et al. (5,689,711) in view of Suzuki (5,272,642).

As per claim 1, Bardasz teaches "a three dimensional model management system for managing a three dimensional model in which relationship of subordination of individual parts is represented by a hierarchical structure," comprising:

object information acquiring means for acquiring object information of individual parts constituting the three dimensional model (Bardasz, figure 5, User Interface 37);

sorting means for sorting the object information acquired by said object information acquiring means in accordance with the hierarchical structure (Bardasz, builder tool 61, col. 26, lines 36-65);

display form setting means for setting a display form in which the object information is to be output for display (Bardasz, figures 24a-24b);

editing means for editing the object information sorted by said sorting means, in accordance with setting by said display form setting means (Bardasz, col. 43, lines 5-12; and col. 49, lines 22-44); and

output means for outputting the object information edited by said editing means to a display device (Bardasz, col. 49, lines 25-35).

It is noted that Bardasz does not explicitly teach that object information arranged in the hierarchical structure is "attribute information" of the object. However, Bardasz' constraint relationships which define the order or position of the object in the hierarchical structure suggests the characteristic or attribute of object as claimed. Furthermore, Suzuki teaches that in a hierarchical structure, the attribute information of the object can be used to define its position and/or order in the structure (Suzuki, figure 2, Layer table 9 includes the attribute information 18). Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made, in view of the teaching of Suzuki, to configure Bardasz' system as claimed by using the attribute information, similar to Bardasz' constraint relationship information, to define the object's position in the hierarchical structure because the attribute data and constraint relationship information have the same characteristic of defining object's property.

Claim 2 adds into claim 1, wherein said editting means excludes attribute information of a predetermined part such that the predetermined part is not displayed on a display screen of the display device (Bardasz, col. 43, lines 5-42).

Claim 3 adds into claim 1, clarifying means for clarifying the attribute information acquired by said attribute information acquiring means according to attribute; wherein

said editing means refers to a result of classification by said classifying means and excludes attribute information of a part having a predetermined attribute such that said part is not displayed on a display screen of the display device (Bardasz, col. 49, lines 33-64).

Claim 4 adds into claim 1, wherein said editing means rearranges attribute information of a part at a lower hierarchical level than a predetermined hierarchical level in the hierarchical structure of the three dimensional model such that said part belongs to the predetermined hierarchical level (Bardasz, col. 43, lines 5-42).

Claim 5 adds into claim 4, redefining means for redefining, as a single part, a group of parts which are defined in the three dimensional model as a plurality of parts, and for generating a new attribute information on the redefined part (Bardasz, col. 43, lines 5-42).

Claim 6 adds into claim 5, wherein said redefining means redefines a predetermined part to which a plurality of parts are subordinate at a lower hierarchy level, as a single part including said plurality of parts, and generates a new attribute information on the redefined part (Bardasz, col. 41, line 58 to col. 42, line 27).

Claim 7 adds into claim 1, specifying means for specifying predetermined attribute information displayed by the display device;

three dimensional data acquiring means for acquiring, from the three dimensional model, three dimensional data corresponding to the attribute information specified by said specifying means (Bardasz, col. 27, lines 19-41); and

facet data generating means for generating facet data, which is surface data for display, from the three dimensional data acquired by said three dimensional data acquiring means (Bardasz, col. 27, lines 41-56).

Claim 8 adds into claim 7, wherein identification information affixing means for affixing identification information indicative of normal creation to the facet data generated by said facet data generating means (Bardasz, col. 27, lines 45-56).

As per claim 9, Bardasz teaches "a computer readable recording medium recording a program for causing a three dimensional model management system to manage a three dimensional model in which relationship of subordination of individual parts is represented by a hierarchical structure," comprising:

object information acquiring means for acquiring object information of individual parts constituting the three dimensional model (Bardasz, User Interface 37);

sorting means for sorting the object information acquired by said object information acquiring means in accordance with the hierarchical structure (Bardasz, builder tool 61, col. 26, lines 36-65);

display form setting means for setting a display form in which the object information is to be output for display (Bardasz, figures 24a-24b);

editing means for editing the object information sorted by said sorting means, in accordance with setting by said display form setting means (Bardasz, col. 43, lines 5-12; and col. 49, lines 22-44); and

output means for outputting the object information edited by said editing means to a display device (Bardasz, col. 49, lines 25-35).

Art Unit: 2671

It is noted that Bardasz does not explicitly teach that object information arranged in the hierarchical structure is "attribute information" of the object. However, Bardasz' constraint relationships which define the order or position of the object in the hierarchical structure suggests the characteristic or attribute of object as claimed. Furthermore, Suzuki teaches that in a hierarchical structure, the attribute information of the object can be used to define its position and/or order in the structure (Suzuki, figure 2, Layer table 9 includes the attribute information 18). Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made, in view of the teaching of Suzuki, to configure Bardasz' system as claimed by using the attribute information, similar to Bardasz' constraint relationship information, to define the object's position in the hierarchical structure because the attribute data and constraint relationship information have the same characteristic of defining object's property.

***Inquires***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Huedung Cao** whose telephone number is **(703) 308-5024.**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Mark Zimmerman**, can be reached at **(703) 305-9798.**

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is **(703) 305-0377.**

Huedung Cao  
Patent Examiner

  
**MARK ZIMMERMAN**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**